

**AMENDMENTS TO THE CLAIMS**

1. (Currently Amended) A key maintenance method comprising:  
maintaining, in a datastore a first-level access key that grants, to a medical service provider, a level of access to a set of medical records of a patient;  
retrieving the first-level access key; and  
generating a second-level access key by the patient modifying the level of access of the first-level access key.
2. (Original) The key maintenance method of claim 1 wherein:  
the levels of access of the first-level and second-level access keys are defined using one or more access parameters;  
the set of medical records is a multi-portion medical record; and  
the access parameters provide access to one or more portions of the set of medical records.
3. (Currently Amended) The key maintenance method of claim 1 further comprising transmitting the second-level access key to the medical service provider, wherein the medical service provider subsequently stores the second-level access key on [[an]] a medical service provider (MSP) key repository assigned to the medical service provider.
4. (Original) The key maintenance method of claim 1 further comprising storing the second-level access key in the datastore.
5. (Original) The key maintenance method of claim 4 further comprising deleting the first-level access key from the datastore.
6. (Original) The key maintenance method of claim 4 wherein the datastore is a patient key repository assigned to the patient.

7. (Currently Amended) The key maintenance method of claim 6 wherein the first-level access key was previously-provided to the medical service provider and previously-stored on [[an]] a medical service provider (MSP) key repository assigned to the medical service provider.

8. (Original) The key maintenance method of claim 7 wherein:  
the patient key repository is a first portion of a centralized key repository; and  
the MSP key repository is a second portion of the centralized key repository.

9. (Original) The key maintenance method of claim 8 wherein the centralized key repository resides on and is executed by a remote server connected to a distributed computing network.

10. (Original) The key maintenance method of claim 9 wherein:  
the remote server is a web server; and  
the distributed computing network is the Internet.

11. (Original) The key maintenance method of claim 7 further comprising reconciling the patient key repository and the MSP key repository.

12. (Original) The key maintenance method of claim 11 wherein reconciling includes overwriting the first-level access key stored within the MSP key repository with the second-level access key stored in the patient key repository.

13. (Original) The key maintenance method of claim 1 wherein the second-level access key enhances the level of access of the first level access key, wherein the medical service provider is granted a greater level of access to the set of medical records of the patient.

14. (Original) The key maintenance method of claim 1 wherein the second-level access key reduces the level of access of the first level access key, wherein the medical service provider is granted a reduced level of access to the set of medical records of the patient.

15. (Original) The key maintenance method of claim 1 wherein the second-level access key revokes the level of access of the first level access key, wherein the medical service provider is prohibited from accessing the set of medical records of the patient.

16. (Currently Amended) A key maintenance method comprising:  
maintaining, in a datastore, a first-level access key that grants, to a first medical service provider, a first level of access to a set of medical records of a patient;

associating, by a key organization system that is communicatively coupled to said datastore, said first-level access key with said first medical service provider;

retrieving, by the key organization system, the first-level access key;

generating, by the key organization system, a second-level access key by modifying the level of access of the first-level access key, said second-level access key granting, to a second medical service provider, a second level of access to the set of medical records of the patient; and

deleting, by the key organization system, the first-level access key from the datastore;

associating, by the key organization system, said second-level access key with said second medical service provider;

identifying, by said key organization system, the second medical service provider; and

responsive to said second medical service provider requesting access to the set of medical records of the patient, said key organization system using said second-level access key for granting said second medical service provider said second level of access to the set of medical records of the patient.

17. (Original) The key maintenance method of claim 16 wherein the datastore is a patient key repository assigned to the patient.

18. (Currently Amended) The key maintenance method of claim 17 wherein the first-level access key was previously-provided to the first medical service provider and previously-stored on [[an]] a medical service provider (MSP) key repository assigned to the first medical service provider.

19. (Original) The key maintenance method of claim 18 wherein:  
the patient key repository is a first portion of a centralized key repository; and  
the MSP key repository is a second portion of the centralized key repository.

20. (Original) The key maintenance method of claim 19 wherein the centralized key repository resides on and is executed by a remote server connected to a distributed computing network.

21. (Original) The key maintenance method of claim 20 wherein:  
the remote server is a web server; and  
the distributed computing network is the Internet.

22. (Currently Amended) A key maintenance system comprising:  
a server system including a computer processor and associated  
memory, the server system having communicatively coupled to a centralized  
key repository and a centralized medical record repository;  
wherein the server system is configured to:  
maintain, in a datastore, a first-level access key that grants, to a  
medical service provider, a level of access to a set of medical records of a  
patient;  
retrieve the first-level access key; and  
generate a second-level access key by modifying the level of access of  
the first-level access key;  
store the second-level access key in the datastore;  
and wherein said server system is further configured to, responsive to  
receipt of a request by the medical service provider to access the set of  
medical records of the patient, use the second-level access key to grant said  
medical service provider the modified level of access.

## 23. (Canceled)

24. (Original) The key maintenance system of claim 23 wherein the  
datastore is a patient key repository assigned to the patient.

25. (Currently Amended) The key maintenance system of claim 24  
wherein the first-level access key was previously-provided to the medical  
service provider and previously-stored on [[an]] a medical service provider  
(MSP) key repository assigned to the medical service provider.

26. (Original) The key maintenance system of claim 25 wherein:  
the patient key repository is a first portion of a centralized key  
repository; and  
the MSP key repository is a second portion of the centralized key  
repository.

27. (Original) The key maintenance system of claim 26 wherein the centralized key repository resides on and is executed by a remote server connected to a distributed computing network.

28. (Original) The key maintenance system of claim 27 wherein:  
the remote server is a web server; and  
the distributed computing network is the Internet.

29. (Canceled)

30. (Currently Amended) A computer program product residing on a computer readable medium of a server that is communicatively coupled to a communication network, said computer program product having a plurality of instructions stored thereon which, when executed by a processor of said server, cause that processor to:

maintain, in a datastore that is communicatively coupled to said server, a first-level access key that grants, to a medical service provider, a level of access to a set of medical records of a patient;

receive, via said communication network, a request from said patient to modify the level of access granted to the medical service provider by the first-level access key;

retrieve the first-level access key; and

generate a second-level access key by modifying the level of access of the first-level access key as specified in the received request from said patient;

identify the medical service provider;

receive, via said communication network, a request from said medical service provider to access the set of medical records of the patient; and

responsive to said received request, use said second-level access key for granting said medical service provider the modified level of access to the set of medical records of the patient, wherein input of the second-level access key by said medical service provider is not required.

31. (Original) The computer program product of claim 30 further comprising instructions for storing the second-level access key in the datastore.

32. (Original) The computer program product of claim 30 further comprising instructions for deleting the first-level access key from the datastore.

33. (Original) The computer program product of claim 30 wherein the datastore is a patient key repository assigned to the patient.

34. (Currently Amended) The computer program product of claim 33 wherein the first-level access key was previously-provided to the medical service provider and previously-stored on [[an]] a medical service provider (MSP) key repository assigned to the medical service provider.

35. (Original) The computer program product of claim 34 further comprising instructions for reconciling the patient key repository and the MSP key repository.

36. (Original) The computer program product of claim 35 wherein the instructions for reconciling include instructions for overwriting the first-level access key stored within the MSP key repository with the second-level access key stored in the patient key repository.

37. (New) The key maintenance method of claim 1 wherein said retrieving and generating are performed by a key organization system that is communicatively coupled to said datastore.

38. (New) The key maintenance method of claim 37 further comprising:

associating, by the key organization system, said second-level access key with a corresponding medical service provider for whom the modified

level of access is granted by the patient;  
identifying, by said key organization system, said corresponding medical service provider as logging in to the key organization system; and responsive to said corresponding medical service provider requesting access to the set of medical records of the patient, said key organization system using said second-level access key for granting said corresponding medical service provider said modified level of access to the set of medical records of the patient.

39. (New) The key maintenance method of claim 38 wherein said key organization system does not require input by said corresponding medical service provider of said second-level access key.

40. (New) The key maintenance method of claim 16 wherein said first medical service provider and said second medical service provider are the same medical service provider.

41. (New) The key maintenance method of claim 16 wherein input of the second-level access key by said medical service provider to said key organization system is not required.

42. (New) The key maintenance system of claim 22 wherein said medical service provider does not supply the second-level access key to the server system.

43. (New) The key maintenance system of claim 22 wherein said server system does not require input of the second-level access key by said medical service provider.

44. (New) The key maintenance system of claim 22 wherein said second-level access key is not stored locally to a client computer of said medical service provider.